is probable that total prosthetic replacement for advanced coxarthrosis as developed by Charnley and others, may be but the forerunner of further advances in the field of total joint replacement.

THEODORE R. WAUGH, M.D.

REFERENCES

Charnley J: Anchorage of the femoral head prosthesis to the shaft of the femur. J Bone Joint Surg 42B:28-30, 1960

Charnley J (guest editor): Total hip replacement. Clin Orthop 73:1-344, 1970

Surgical Treatment of Rheumatoid Arthritis in the Hands

Less than one third of patients having rheumatoid arthritis may be helped by surgical operation. Destruction of the wrist, small joints and tendons of the hand can be arrested by excising thick, granulomatous synovium. Synovectomy may relieve pain and prevent subsequent deformity, but often results in some limitation of motion.

Rheumatoid synovium surrounding the flexor tendons beneath the transverse carpal ligament frequently causes compression of the median nerve, resulting in the so-called carpal tunnel syndrome. Surgical excision of the synovium, thereby decompressing the nerve, usually will relieve symptoms of the syndrome. The function of extensor and flexor tendons that rupture may be restored by tendon transfers or grafts.

Destroyed, subluxed or dislocated metacarpophalangeal joints are frequently accompanied by ulna drift of the fingers. Relocation of the extensor mechanism over the center of the metacarpophalangeal joints after arthroplasty of these articulations usually results in improved position and function. Prosthetic replacement of severely destroyed joints, especially at the metacarpophalangeal level, with implants made of silicone rubber seems to be gaining acceptance.

PAUL R. LIPSCOMB, M.D.

REFERENCES

Lipscomb PR: Surgery of the arthritic hand: Sterling Bunnell Memorial Lecture. Mayo Clin Proc 40:132-164, 1965

Flatt AE: The Care of the Rheumatoid Hand. St. Louis, CV Mosby Co, 1968

Niebauer JJ, Shaw JL, Doren WW: The silicone-dacron hinge prosthesis: design, evaluation and application. Proceedings ASSH J Bone Joint Surg 50A:634, 1968

The Use of Compression Plates for Fractures

Compression plating of fractured long bones has now become an accepted part of the fracture surgeon's armamentarium. The method was devised by Professor Müeller of Basle and a group of his colleagues. The plates are thicker and heavier than previously designed plates, with firm fixation to the bone by screws. The plate is fixed to one fragment of the fractured bone, reduction is achieved and a device is used to compress the fracture fragments together; then the plate is fixed to the other fragment. The method demands a clear understanding of various approaches to long bones and excellent surgical technique. Also, one should be familiar with the instrumentation and whole procedure before operating upon a patient. With anatomical reduction, healing takes place directly across the fracture site in the cortices, and resorption of bone has not been a problem. Normal vascularization can occur through the medullary canal.

The plates and fixation are strong enough so that no immobilization is used in fractures of the forearm and often not in the lower extremity, although balanced suspension is used for the first two weeks postoperatively. Although the plates are devised for all bones, we find their greatest use for fresh fractures in the forearm for non-union of forearm bones and humerus and rarely in comminuted fractures of the femur or non-union. We have not used them for fresh fractures in the tibia; rarely in non-union. When used in the lower extremities, weight-bearing should not be permitted for three months or longer. We would like to emphasize that excellent surgical technique is necessary, wide experience is demanded, and familiarization with the apparatus is a requisite for using the method upon a patient.

J. PAUL HARVEY, JR., M.D.

REFERENCES

Anderson LD: Compression plate fixation and the effect of different types of internal fixation in fracture healing. J Bone Joint Surg 47A:191-208, 1965

Mueller ME, Algower M, Willenegger H: Technique of Internal Fixation of Fractures. New York City, Springer-Verlay, New York, Inc., 1965